

Dkt No. PAT051912-US-PCT

2300-20009

USSN: 10/552,192

PATENT

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior listings and versions:

1. (canceled).
2. (currently amended): An isolated protein comprising a polypeptide exhibiting at least 70% sequence identity to consisting of the amino acid sequence of SEQ ID NO:1, with wherein the protein comprises one or more mutations that reduce or eliminate ADP-ribosylating activity of the protein, ~~wherein the one or more mutations are made at least one of the following amino acid residues of SEQ ID NO:1: 504, 506, 537, 539, 548, 564, 567, 570, 573, 574, and 576.~~
3. (original): The protein of claim 2, wherein the amino acid sequence contains between one and twenty mutations.
4. (canceled).
5. (previously presented): The protein of claim 2, wherein the mutation(s) are independently substitutions, insertions, and/or deletions.
6. (original): The protein of claim 5, wherein the mutation(s) include single amino acid substitutions.
- 7 to 11. (canceled).
12. (currently amended): A protein of claim 1 9, wherein said protein is associated with at least one molecule of NAD, nicotinamide and/or ribosyl- ADP.
13. (previously presented): The protein of claim 2, for use as an adjuvant.

14. (original): The protein of claim 13, for use as a mucosal adjuvant.
15. (previously presented): A method of raising an immune response in an animal, the method comprising the step of administering a protein according to claim 2 to said animal.
16. (previously presented): An immunogenic composition comprising the protein of claim 2 in admixture with an antigen.
17. (withdrawn): An antibody which binds to the protein of claim 2.
18. (withdrawn): An isolated nucleic acid encoding the protein of claim 2.
19. (withdrawn): An isolated nucleic acid comprising the nucleotide sequence recited in SEQ ID NO:2.
20. (withdrawn): An isolated nucleic acid comprising a fragment of 10 or more nucleotides from the nucleic acid of claim 18.
21. (withdrawn): A vector comprising a nucleic acid sequence of the nucleic acid of claim 18.
22. (withdrawn): A host cell transformed with the vector of claim 21.
23. (withdrawn): A composition comprising the nucleic acid of claim 18.
24. (withdrawn): A composition comprising the antibody of claim 17.

25. (withdrawn): A method of treating or preventing bacterial infection, the method comprising administering a protein according to claim 2 or a nucleic acid encoding the protein to a subject.

26. (withdrawn): The method of claim 25, wherein the bacterial infection is caused by *Listeria monocytogenes*.

27. (withdrawn): The method of claim 26, wherein the bacterial infection is listeriosis.

28. (canceled).

29. (new) The isolated protein of claim 2, wherein the mutations are made at least one of the following amino acid residues of SEQ ID NO:1: 504, 506, 537, 539, 548, 564, 567, 570, 573, 574, and 576